

REMARKS

Claims 1-27 are currently pending in the application. Reconsideration of the application in light of the following remarks is respectfully requested.

I. REJECTION OF CLAIMS 1, 2, 6-8, 10, 11-13, 15-23, AND 25-27 UNDER 35 U.S.C. § 102(b)

Claims 1, 2, 6-8, 10, 11-13, 15-23, and 25-27 were rejected under 35 U.S.C. §102(b), as being anticipated by Solomon et al. (U.S. Patent No. 6,428,266). Withdrawal of the rejection of claims 1, 2, 6-8, 10, 11-13, 15-23, and 25-27 is respectfully requested for at least the following reasons:

- i. **Solomon et al. fail to teach or suggest a second actuator operable to continuously rotate a second link in a second rotational direction, as recited in claim 1.***

Claim 1 of the present invention recites:

a second actuator operable to continuously rotate the second link about the second joint in a second rotational direction, wherein the end effector is operable to linearly oscillate with respect to the base portion along a first scan path upon the rotation of the first and second actuators.

Solomon et al., fail to teach or suggest such a second actuator. On the contrary, Solomon et al. appear to teach a rotation of an upper arm link with respect to a lower arm link, wherein the rotation of the upper arm link is not capable of a continuous rotation. The upper arm link taught by Solomon et al. is rotationally driven by an elbow motor coupled to first and second elbow drive pulleys, ***wherein drive tapes are pinned to the first and second elbow drive pulleys*** (see, e.g., col. 4, lns. 35-46 and Fig. 3, items 90, 94, 96, and 100). Such a pinning of the drive tapes to the elbow drive pulleys ***inherently limits*** the rotation of the drive pulleys, wherein ***continuous rotation of the drive pulleys is impeded by ends of the drive tapes being fixed to the pulleys***. Hence, the rotation of the upper arm link with respect to the lower arm link is limited,

wherein the elbow motor cannot provide a continuous rotation of the upper arm link as recited in the present invention.

Accordingly, Solomon et al. fail to teach or suggest a second actuator operable to ***continuously rotate*** a second link in a second rotational direction, as claimed, wherein the continuous rotation of the second link, in conjunction with the continuous rotation of the first link, is operable to oscillate the end effector.

Therefore, Solomon et al. fail to anticipate the presently claimed invention, and withdrawal of the rejection of claim 1 and claims 2, 6-8, 10, 11-13, and 15-22 that depend on claim 1 is respectfully requested.

ii. Solomon et al. teach away from a second actuator operable to continuously rotate a second link in a second rotational direction, as recited in claim 1.

Again, as stated above, claim 1 recites a second actuator operable to ***continuously rotate*** the second link ***in the second rotational direction***, wherein the rotation of the first link and second link is operable to linearly oscillate the end effector. Not only do Solomon et al. fail to teach or suggest such a feature, as detailed above, but the elbow motor of Solomon et al. appears to ***require a reversal of rotational direction*** in order to translate the end effector coupled to the upper arm in an oscillatory manner. Accordingly, since the drive tapes of Solomon et al. are pinned to the first and second elbow pulleys, ***Solomon et al. teach away from a continuous rotation of their elbow motor***, since the rotation of the elbow motor must be reversed in order to unwind or wind the drive tapes around the first and second elbow drive pulleys.

Therefore, for this additional reason, withdrawal of the rejection of claim 1 and claims 2, 6-8, 10, 11-13, and 15-22 that depend on claim 1 is respectfully requested.

iii. *Solomon et al. do not teach maintaining a constant second rotational direction of the second link, as recited in claim 23.*

Claim 23 of the present invention recites:

controlling a respective rotational velocity of the first link and the second link such that the end effector linearly oscillates in a generally straight line, and wherein the first rotational direction and the second rotational direction remain constant.

As stated above, Solomon et al. do not teach maintaining a constant rotational direction of the upper arm link, since the upper arm link of Solomon et al. is rotated *via* the drive tapes that are pinned to the elbow drive pulleys. Again, ***such a pinning of the drive tapes generally limits a rotation of the upper arm link with respect to the lower arm link***, and consequently, ***requires a reversal of rotational direction*** in order to wind or unwind the drive tape from the first and second elbow drive pulleys.

Accordingly, Solomon et al. clearly do not anticipate maintaining a constant rotational direction of the second link as claimed in the present invention. Therefore, withdrawal of the rejection of claim 23 and dependent claims 25-27 is respectfully requested.

II. REJECTION OF CLAIMS 3-5 AND 14 UNDER 35 U.S.C. § 103(a)

Claims 3-5 and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Solomon et al. (U.S. Patent No. 6,428,266) in view of Seraji et al. (U.S. Patent No. 5,737,500). As stated above, claim 1 is believed to be allowable over the cited art, and Seraji et al. fail to remedy the deficiencies of the primary reference. Claims 3-5 and 14 depend on claim 1, and therefore are further believed to be allowable over the cited art.

Accordingly, withdrawal of the rejection of claims 3-5 and 14 is respectfully requested.

III. REJECTION OF CLAIMS 9 AND 24 UNDER 35 U.S.C. § 103(a)

Claims 9 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Solomon et al. (U.S. Patent No. 6,428,266) in view of Sieradzki et al. (U.S. Patent

Publication No. 2003/0123958). As stated above, claims 1 and 23 are believed to be allowable over the cited art. Sieradzki et al. fail to remedy the deficiencies of the primary reference. Claims 9 and 24 depend on the respective claims 1 and 23, and are therefore further believed to be allowable over the cited art.

Accordingly, withdrawal of the rejection of claims 9 and 24 is respectfully requested.

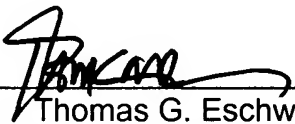
IV. CONCLUSION

For at least the above reasons, the claims currently under consideration are believed to be in condition for allowance.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

Should any fees be due as a result of the filing of this response, the Commissioner is hereby authorized to charge the Deposit Account Number 50-1733, EATNP156US.

Respectfully submitted,
ESCHWEILER & ASSOCIATES, LLC

By 
Thomas G. Eschweiler
Reg. No. 36,981

National City Bank Building
629 Euclid Avenue, Suite 1210
Cleveland, Ohio 44114
(216) 502-0600

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: September 16, 2005


Christine Gillroy